SmartPlant Instrumentation Technical User Forum P2C2 (Houston SPI TUF) Meeting					**August 13, 2013 8:00 am Hosted by Endress+Hauser**	
Attendees	37 Members in attendance 8 Online Connections		**Copied To**	Houston SPI LTUF Website		
Called By	John Dressel	**Prepared By**	Betty Alexander & John Dressel			

Item	Topic	Notes	Action/Due
1	Welcome to E+H	Welcome to Endress+Hauser Doug Church, E+H	
2	Chairman's Notes	John Dressel, Fluor • Fluor's Construction Group stated on the rollout of SmartPlant Construction that "they need data not drawings" for their operations. The need for Data is becoming more important as Engineering moves into a Data Centric environment Minutes from prior meeting were approved. Introductions were done. • Personnel from Fluor, Intergraph, Jacobs, Mustang, KBR, CB&I WP, ExxonMobil, Amec ,Technip, Endres+Hauser, Shaw, Emerson, Dow, EngrSys, Foster Wheeler, Mangan, OSI, Shell, Honeywell	
3	Presentation	What Happens at HxGN Doesn't Stay at HxGN John Dressel, Fluor Intergraph HxGN 2013 PP&M Agenda PP&M TUFS • SmartPlant Engineering & Schematics • Intergraph Customer Relations and Support • Technical User Forums Linkedin Communities • Technical User Forums CR Ranking • SmartPlant P&ID Engineering Integrity • Introduction to SmartPlant Cloud SPI TUF • SmartPlant Instrumentation Features • SPI Version 2013 new features • SPI Version 2014 coming features HXGN LIVE 2013 • Hands on Training Sessions • Key Note Speeches and Events • The Zone – Technical • Session Presentation • Social Events THE VENUE • MGM Grand Hotel and Convention Center, Las Vegas, Nevada Intergraph PP&M TUF Meetings • The PP&M TUF meeting was held Sunday June 2 before	

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		the start of the HxGN LIVE conference • We had over 200 users present for the morning joint meeting representing the following tools: • SmartPlant Engineering & Schematics Overview : Frank Joop, Intergraph & Zur Bar, Intergraph • SmartPlant P&ID: TUF chair - Joe Lawrence, Mustang and Tool Owner - Mike Herod, Intergraph • SmartPlant Instrumentation: TUF chair - John Dressel, Fluor and Tool Owner - Guy Masin, Intergraph • SmartPlant Electrical: TUF chair - Scott Hendrickson, Burns McDonnell & Tool Owner - Meir Stein, Intergraph Richard Andrews, Intergraph Customer Relations and Support manager announced: • The Intergraph eCustomer Services and Support will undergo major changes before the end of the year • Total Redesign and Rebranding of the website to “Smart Support” • A Google type search engine to allow more dynamic searches • A searchable knowledge base for user to quickly find answers • A Blog service for user interaction and queries Nicole Brlek, Senior marketing event specialist at Intergraph announced: • Intergraph and SmartPlant Linkedin communities continue to grow • The fastest growing community is Smart 3D • The largest community is was SmartPlant Instrumentation but was overtaken by Smart 3D • New communities will be added as new products and services come online • Urged all users to become active members of Linkedin by contacting her at nicole.brlek@intergraph.com Dennis Cooley, Nexen Inc. gave a report on the Technical User Forums CR Ranking website: • The TUF CR ranking website now has separate pages for all the SmartPlant tools • The website now allows users to post their “Wish Lists” for products • The top five CRs or Suggestion ranking is shown on the front page of each product • Local Technical User Forums may now post their meeting agendas and notes on the site • Urged all users to become active participants in the CR ranking website Joe McDonald, HAZID gave a report on SmartPlant P&ID Engineering Integrity: • SmartPlant P&ID Engineering Integrity checks P&ID data and graphics against a rule base • Comes with over 3000 rules and users may add their own rule libraries • Displays issues on a copy of the P&ID and in reports for	

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		response • Creates “Cause and Effect Diagrams” from Instrument I/O on the P&ID • Has been extended to allow real time checking of data in P&ID or SPI Kevin Holmes, Intergraph Director gave an Introduction to SmartPlant Cloud: • Delivering SmartPlant applications from the Cloud using a simple web link • Allows all Intergraph and User software deployment over the Web • Delivering projects faster, globally using standard work processes • Provides projects with 24/7 Intergraph Technical Support • Allows customers and subcontractors to collaborate on capital projects SmartPlant Instrumentation TUF Meeting SPI Version 2013 New Features • New Support Tables rights granularity • New Per-signal Wiring Drawings • New Batch Loop Duplicate functions • And More… SPI Version 2014 Planned Features • Smart Query Builder (Browser) • Custom Units of Measure • Logic Diagramming • And More… SPI Announcements • SmartPlant Demo Center • SmartPlant Test Drive for SPI • Intergraph ISO 15926 FIATECH Award • And More… Intergraph PPM @ HxGN LIVE 2013 • Monday June 3 - Paid Training Sessions and Conference Registration • Tuesday June 4 - Conference Kickoff and Key Note Speeches • Wednesday June 5 - Session Presentations and Connecting over food or in The Zone • Thursday June 6 - Technical Demonstrations, Social Events and Closing Sessions Hot Topics This Year! • SmartPlant Construction • SmartPlant Foundation • SmartPlant Materials • SmartPlant Cloud • SmartPlant 3D • Geospatial Q&A – How does ISO-15926 work with SPI? – Aligning data mapping between applications; E+H following ISO-15926, New standard for integration for vendor tools and Intergraph’s SmartPlant	

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		Foundation integration is based on ISO-15926	

4	Presentation	<u>SmartPlant Instrumentation Vendor Interfaces</u> John Dressel, Fluor
		• SmartPlant Instrumentation (SPI) has more Vendor interfaces to than any other Process Controls Engineering Automation tool
		
		How Vendor Interfaces work in SPI
		• Build Instrument Tags and sizing data in SPI using automation functions
		• Create Control Valve Datasheets
		  ○ Export to Specification to Sizing software
		  ○ Use Vendor software for valve sizing calculations and selection
		• Create Field Instrument Datasheets
		  ○ Export to Instrument Selection software
		  ○ Use Vendor software for sizing and selection of instruments
		• Create Field Wiring Network with I/O
		  ○ Import SPI I/O Card Library for DCS
		  ○ Export SPI DCS I/O data to DCS software
		  ○ Use DCS Configuration tools and SPI to Configure and Maintain DCS Process Control System
		
		SPI Control Valve Vendor Interfaces
		• Steps for SPI Control Valve Vendor Interfaces:
		  1. Build Control Valve Instrument Tags and input process sizing and selection data in SPI using automation functions
		  2. Create Control Valve Datasheets in SPI
		  3. Export to Vendor Sizing and Selection Software
		  4. Use Vendor sizing and selection of instruments
		  5. Import Manufacturer and Model Numbers into SPI From Vendor Selection Software
		  6. Issue Purchase Orders and Construction Hookup documents from SPI
		  7. Export Inline Instrument Dimensional Data to SP3D for model
		
		Fisher Control Valve SPI Interfaces
		• Fisher has a built in SmartPlant Instrumentation interface to Fisher FirstVue
		• FirstVue does Sizing and Selection and uses Fisher First for pricing and RFQ
		• Fisher First and FirstVue must use SPI form 70 for proper export of sizing data
		• Fisher Specification Manager allows any SPI Form to be mapped for export
		• Because Fisher Specification Manager does not use the cost estimating tool in Fisher First – some suppliers and business partners are reluctant to use it
		• The Fisher Specification Manager can map to Fisher First and FirstVue
		• The Fisher Interfaces cannot handle multiple Process Cases for a single tag.	

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		Flowserve Control Valve SPI Interfaces • Flowserve Performance like most other Control Valve Vendor Sizing and Selection software has Import Export capabilities for interfacing with SPI Dresser Relief Valve SPI Interfaces • Dresser Consolidated uses their SRVS (Computer Assisted Sizing Program) software for sizing and selection of Safety Relief Valves • They have created a unique interface by building an SPI Spec Sheet form specifically for their Relief Valves that is pre mapped to the SRVS program • PSV Sizing data is exported and Imported between SPI and SRVS as a coma delimited file SPI Instrument Interfaces Steps for selecting Vendor Model Numbers: • Build Instrument Tags and input process sizing and selection data in SPI using automation functions • Create Instrument Datasheets in SPI • Export to Vendor Sizing and Selection Software • Use Instrument Vendor Selection software • Import Manufacturer and Model Numbers into SPI From Vendor Selection Software • Issue Purchase Orders and Construction Hookup documents from SPI • Export Dimensional Data to SP3D for model Emerson Instrument SPI Interfaces Issues with the Rosemount – Micro Motion Instrument Toolkit • Each Type of SPI Spec Form must be mapped to the Toolkit • It is necessary to send a copy of the spec to determine the required options and materials • In Toolkit, the selection process requires a long step by step process • Moving to the next tag requires a start-over and you must go through the step by step process again Issue Mitigation • Group Like instrument types together and send one of each type through the interface then apply the model number to all tags E+H W@M Instrument SPI Interface Issues with the Endress+Hauser W@M Portal Interface • Each Type of SPI Spec Form must be mapped to the E+H Project Engineering Assistant and a new project is created in the system • A new detailed Specification is created in the W@M portal in E+H format, NE100 or ISA SP20 forms. • A XLS spreadsheet is mapped for SPI data and imported as an XML • Documentation is held until the “As Built” phase of the project , then associated to the Tags in SPI (e.g. vendor operating manual, initial calibration certificate and certified	

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		drawings) Issue Mitigation • May need to use E+H Spec Forms in SPI for consistent mapping Other Instrument SPI Interfaces Issues with SmartPlant Instrumentation Vendor Interfaces • SPI requires a different Spec Form for each Instrument Type • Smart Instruments (HART Protocol) carry process conditions, ranges and set points as part of the digital data set so process data needs to be assigned to both element and transmitter for most instruments • Most Vendor model selection tools have Import / Export capabilities but will require data mapping for each type of instrument • Information in Spec Sheet notes will not come over as mapped data Issue Mitigation • More Compliance with ISO 15926 and NE-100 Standards needed SPI DCS & PLC Interfaces Steps for DCS & PLC Configuration: • Download SPI I/O Card Library for DCS • Create Field Wiring Network with I/O Cabinets in SPI Wiring Modules by EPC • Connect field devices and cables in SPI using the SPI Wiring Explorer and Modules • Export SPI DCS I/O data to DCS Vendor Configuration Programs • Use DCS Configuration software and SPI Wiring data to Configure and Maintain Process Control System • Perform Owner Operator Functions for Calibration and Loop Maintenance Emerson DeltaV DCS SPI Interface Pros for the DeltaV DCS SPI Interface • Provides I/O Libraries for all systems including HART and CHARMS • Uses a pre-mapped negative file (Excel) for interface export • Interface is bidirectional for Owner Operator maintenance and control • The interface is well supported by both Intergraph and Emerson • Interface supports both DeltaV DCS and DeltaV SIS hardware Cons for the DeltaV DCS SPI Interface • Previous versions required costly license limiting usage • The interface does not work in Owner Operator mode where it is needed most Yokogawa DCS SPI Interface Pros for the Yokogawa CENTUM CS 3000 - SPI Interface • Provides I/O Definition files for CENTUM CS 3000 • Uses Excel add-ins to the CENTUM software for import and	

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		export • Interface is bidirectional for Owner Operator maintenance and control • The interface is well supported by both Intergraph and Yokogawa • Interface supports both Publish and Retrieve functions in SPI Cons for the Yokogawa CENTUM CS 3000 - SPI Interface • Users must carefully maintain data definitions and ranges in SPI • Previous versions required costly license limiting usage • The interface does not work in Owner Operator mode where it is needed most Honeywell DCS SPI Interface Pros for the Honeywell Experion PKS - SPI Interface • Pre defined I/O module and termination assemblies for all Experion I/O • Uses SPI Adaptor to publish data to Experion Control Builder • Interface is bidirectional for Owner Operator maintenance and control • Supports configuration of virtual tags and device resident functions blocks within Experion and SPI • Interface supports both Publish and Retrieve functions in SPI Cons for the Honeywell Experion PKS - SPI Interface • The interface is new so it is essentially unproven with limited user experience • The interface does not work in Owner Operator mode where it is needed most ABB DCS 800xA System SPI Interface • ABB's Process Engineering Tool Integration (PETI), SmartPlant Instrumentation integrates with ABB 800xA Control System • ABB I/O Catalog Manager uploaded into SPI • Bi-Directional data Integration uses database to database synchronization between SPI and 800xA • PETI - Wizard driven SPI and 800xA system integrator • Drag and Drop User Interface for integration data mapping • Enforced step-by-step procedure for Express-Sync and Transactions Preview • Over-ride direction of data transfer between SPI and 800xA • Color Coding of differences between SPI database and 800xA Other DCS and PLC SPI Interfaces • Other DCS and PLC systems that offer import capabilities for I/O assignment can be interfaced with SPI • Requires manual user building of I/O cards and cabinets in SPI • I/O loading in SPI must be exported from SPI and imported into the DCS or PLC configuration software • Manufactures that support SPI but do not have interfaces • Invensys joined Intergraph in a SmartPlant foundation	

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		alliance in 2009 but we have yet to see a Foxboro DCS or Triconex PLC SPI Interface but they offer to import the SPI data into their Invensys Engineering Workbench • Siemens SPPA-T3000, Simatic PCS-7, Azbil and Harmonas are other manufactures that have database integration capability SPI VENDOR INTERFACES FOR THE OWNER OPERATOR Calibration Module Interface • Maintenance personnel can upload or download calibration data to and from the SPI, including as-found, as-left, and other key instrument information for Fluke 740 Series Calibrators Asset Management Interfaces • The SPI interface with SAP NetWeaver is commonly used for Plant Service and Asset Management Systems Emerging Technology & Vendor Interfaces • Most Projects today use a combination of Conventional, Bus wiring and Wireless Instrument types and technologies selected for best fit to project and system requirements • Finding the right balance between system requirements and applied technology are day-to-day choices facing engineers working in both large and small engineering companies • Electronic Vendor data integration to SPI is a major factor in the Vendor selection process Improving the SPI Vendor Interfaces • The Vendor Interfaces are unique for each product line with separate user interfaces and integration mechanisms. As the interfaces mature they will assume a more standardized look and feel as well as a unified integration method • The Intergraph SmartPlant Foundation integration component of SmartPlant Enterprise will allow supplier data to be integrated with any of the SmartPlant Suite of Software using adapters • The Interfaces will be based on one or more international standards to facilitate Global Implementation across multiple business sectors • The use of third party data integration tools and cloud based vendor catalogs will standardize vendor data resources Improving the SPI Vendor Spec Sheets • Demands on SPI Spec Sheets o Sizing Data Requirement ▪ Process Data and Ratings o Instrument Selection Data ▪ Materials and Design conditions o Optional Accessories ▪ For catalog number resolution o Related Components ▪ Positioners, etc… o Manufacture & Model ▪ Catalog Number o Vendor Specific Specifications	

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		• Future SPI Specification Libraries
		  ○ Standardized across vendors
		  ○ Specs Simplified for purpose
		  ○ Minimal Required Data indicated
		
		Improving the E+H SPI Vendor Interface
		• Intergraph and E+H have teamed up to provide innovative interface offerings for the best of both market-leading solutions.
		• This Interface makes the workflow paperless, eliminates manual entry errors, and reduces the engineer's work time
		• Intergraph and E+H are working to improve the solution over time. Topics in discussion and planning include automatic download of device-specific drawings, electrical design macros, and 3D models.
		• Endress+Hauser has partnered with Thomas Industrial Network to Build full CAD and SmartPlant 3D Libraries to maximize Vendor Data Integration
		
		Improving the SPI Interface Standards
		• The Process Engineering communities need to further coordinate efforts in areas critical to lifecycle information Interface and Integration
		• Companies like E+H, Fluor, and Intergraph are working together to utilize international data interface standards for interoperability
		• Data Interface and Integration STANDARDS WARS
		  ○ NAMUR / Prolist NE-100 Interface Data Definition Interface Standard for engineering processes to build and maintain chemical plants
		  ○ ISO 15926 is a Cross Product Data Mapping Integration Standard for data exchange developments in the oil and gas industries
		
		NAMUR / Prolist NE-100 Standard - XML Interface Data Definition Interface Standard
		• NE-100 for engineering processes to build and maintain chemical plants using Lists of Properties (LOP) for data exchange
		• NE-100 Version 3.1 (2009) contained 105 LOP for:
		  ○ Measuring instruments (51)
		  ○ Interface Devices (37)
		  ○ Actuators (19)
		  ○ In preparation: I/Os for DCS/PLC
		
		ISO 15926 Integration Standard - Cross Product Data Mapping Integration Standard
		• ISO 15926 is the basis for many developments in oil and gas data exchange
		  ○ Part 1 - Introduction, information concerning engineering, construction and operation of production facilities is created, used and modified by many different organizations throughout a facility's lifetime. The purpose of ISO 15926 is to facilitate integration of data to support the lifecycle activities and processes of production facilities.
		  ○ Part 2 - Data Model. a generic 4D model that can	

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		support all disciplines, supply chain company types and life cycle stages, regarding information about functional requirements, physical solutions, types of objects and individual objects as well as activities. o Parts 4,5,6 - Reference Data, the terms used within facilities for the process industry. o Part 7 - Implementation methods for the integration of distributed systems, defining an implementation architecture that is based on the W3C Recommendations for the Semantic Web. • SmartPlant Foundation is the information management and integration component of SmartPlant Enterprise. The underlying SmartPlant Foundation and SmartPlant Instrumentation data model has shared a common basis with ISO 15926 Part 2.	
5	Presentation	<u>Endress+Hauser - SPI Interface</u> John Salusbury, Endress+Hauser • Faster Design by automating processes Equals Reduced Engineering Costs Introduction o Instruments simple components but may variants o Faster design by automating the processes o Integrated specification sheet workflow o Automated creation of 3D Models and 2D Drawings o Summary Instrumentation: Simple components many variants • A typical midsized process plant might have 10000 instruments that need basic and detailed engineering (selecting, sizing, documenting etc.) Linking into customer tools and processes! – Customers do not want more tools – but valid information! • Endress+Hauser Tools o Endress+Hauser Products o Endress+Hauser Services • Customer Side Tools o SmartPlant Instrumentation o Customer Asset Management Strategy o Customer Operative Needs Automated Spec' Sheet Exchange • So you work in SPI and we work in our environment populating the Spec sheets and adding technical data as required • Data Exchange Process using predefined Spec Forms Workflow Demonstration SPI Integration: What have we done so far: • Jointly developed the interface and work flow with Intergraph and a Global Customer • Conducted and passed the "work flow" proof of concept • Embedded first 21 spec forms into SPI • Currently ensuring QA for data flow out of SPI into the Endress+Hauser Engineering tools. • Acceptance testing on all 21 spec forms with customer scheduled for Q4/2013	

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		• First project 7,000 instruments kicks off end of 2013 …but once you have selected the device and provided supplementary documentation what next? From the specified instrument part number to detailed 3D Models and Drawings • Endress+Hauser work exclusively with Thomas Net to create their 3D models for import into Smart Plant Partner – Thomas Industrial Network • Unit of Thomas Publishing Company, operating since 1898 • Formerly known for the Thomas Register of American Manufacturers industrial print directory. • Operate the world's largest online B2B industrial vertical website focused on connecting industrial buyers and sellers - www.ThomasNet.com • They have a CAD engine it can output 3D/2D drawing's in all commercially available format • Endress+Hauser work exclusively with Thomas Net to create their 3D models for import into SmartPlant Summary 3D Models, 2D Drawings • Project with Thomas Industrial Network kicked off 01 July 2012 • First 105 Endress+Hauser Instrument Types currently being modeled. On track for release end of 2013 for internal Endress+Hauser use • Market release planned Q2/2014 • Approximately 35 products currently adapted with additional attribute data for import into Smart Plant. Creation completed, final QA ongoing. • Next batch of instruments assigned for 2014…mainly new product models and special variants on existing products • The newly designed workflow is paperless, eliminates manual entry errors and we estimate reduces the engineer's work time by a minimum of one hour per data sheet. With the ability to map changes, it also ensures traceability of work across the design to the procurement stages and into the plant operations phase. Once a device is specified then 3D Models and 2D drawings are accurately created. Another hour is saved • In a the design of a typically sized plant with 10,000 devices, saving two hours per device amounts to ten man years of engineering time Q&A – Are you bypassing the DDP Module functionality through SPI – DDP functionality will be coming out of 3D. Short term not replacement data but augmented data. Vendors are they available? Fisher and Endress, Yokogawa, Flowserve – Project based on a subset of data.	

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6	Presentation	Experion SPI Adapter Andrew Kunev, Honeywell • SmartPlant Instrumentation and Experion PKS - Engineering tools to dramatically simplify the configuration of UIO • Provides bidirectional data exchange between the Experion and SmartPlant Instrumentation • I/O catalog allows designers to complete field hardware designs within SPI and them simply load I/O allocations to Experion • Allows changes in design data to flow seamlessly into Experion driving productivity and schedule • Site modifications for Experion loops can be efficiently published to SPI to complete as-built documentation Benefits of Data Integration • Reduced engineering effort o Reduce duplicate data entry o Ensure documented design matches system configuration • Standard representation of Experion within SPI o Pre defined I/O module and termination assemblies for all Experion I/O o Consistent loop diagrams across different projects and sites • Maintain data integrity o Consistency can be maintained across the system lifecycle o Documentation discrepancies can be easily identified • Rapid exchange of data o Allows parallel activities for design and configuration o Enables the late binding of physical and logical designs o Reducing the cost of changes caused by incomplete data Support for Universal Channel Technology • Support I/O modules utilizing Universal Channel Technology o Any instrument type AI, AO, DI or DO to be connected to any channel o I/O type definition by software configuration • The design engineer using SPI does not need to know the specific DCS panel details o Eliminating the need for custom marshalling and I/O cabinets	

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		○ Allowing the use standard cabinets designs Streamlining Project Processes • Traditional project processes can be significantly streamlined ○ Creating and assigning of controllers and I/O modules ○ Assignment of I/O channels to control system tags ○ Synchronization of parameters across the design and configuration databases • Exchange of HART and Fieldbus field device properties Managing Lifecycle Activities • Significant investment to support and maintain the SPI design database throughout the lifecycle of the facility • The SPI adapter tool streamlines support - enabling the “As-Built” designs to remain in sync with online systems • Ensure the integrity of the design database and as such maximize the usage in day-to-day operations Support for Fieldbus Designs • Supports the exchange of field device information associated with HART and Foundation Fieldbus designs • Supports configuration of virtual tags and device resident functions blocks within Experion and SPI • Catalogs are also available for Honeywell Fieldbus and HART instruments Honeywell I/O Catalog Library • DCS Controller I/O Catalog ○ Experion C-Series I/O ○ Experion / TPS PMIO & FTAs ○ Support for new & legacy systems • Safety Controller I/O Catalog ○ Safety Manager / FSC I/O & FTAs ○ Supports loops for SIS, ESD, FGS • Specialized assemblies for ○ Integrated GI/IS modules ○ Non-incendive I/O ○ Integrated F&G interfaces • Improved Design Efficiency ○ 200+ hrs saving per project Technical Details - Experion-SPI Adapter R100	

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		• Functional Specifications o The SPI adapter provides the import and export of the following components. 1. Controllers 2. IO Modules 3. IO Channels 4. Control System Tags 5. HART Devices 6. Fieldbus Devices 7. Fieldbus Function Blocks 8. Fieldbus Interface Modules o Supports the SPF “file mode” transfer mechanism (XML) o Supported from SPI 2009 SP4 (released June 2012) Enabling the Honeywell Interface in SPI • Interface is enabled as a licensed SPI option from Intergraph o Appears as ‘INB’ code in SmartPlant License Manager • Interface allows o Retrieve Honeywell definitions o Publish SPI data o Retrieve Honeywell data Retrieve Honeywell Definitions • Retrieving the Honeywell Experion PKS definitions is a prerequisite for both publishing and retrieving the Honeywell Experion PKS data • The Honeywell definitions that you download and retrieve in SPI constitute the engineering library of the Experion I/O module and terminations I/O Catalog Library • I/O Catalog definition files are downloaded from HPS website • Xml files are imported into SPI to populate Reference Explorer • Help files and lookup matrix enable IO module and termination assembly associations • SPI Users Drag & Drop to Project/Domain Explorer Defining Experion Cabinets in SPI • Experion cabinets are defined under DCS Panels within	

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		Plant/Area/Unit domain • Panel hierarchy with SPI follows “Panel / Rack / Slot / Module” • I/O channels are associated with I/O Terminations • I/O Terms are associated with I/O modules • For Series C IOMs and IOTAs are always in the same position (slot) • For PMIO IOPs and FTAs may be in different cabinets & redundant IOPs are usually in different racks • Terminals and CS Tags reside under I/O Channels Q&A • White paper will be available for Honeywell • Owner Operator works with As Built but in EPC mode will work with Honeywell Interface Univeral I/O • I/O Catalog drops into DCS Panels of the Reference Explorer • All licenses needs to be re-cut with Intergraph • EPKEAS – Experian Knowledge System • Alarm Setpoints and Virtual tags are they bi-directional tags. Not FF in bi-directional tags. Only concerned with control system table • Why isn’t the channel type populated in reference explorer? Universal cards are a problem.	
7	Forum Topics	<u>Announcements</u> • Local users conference in Wed, Oct 30th, Houston Marriott Westchase • SPI 2013 – Is easy to install, there will be no Service Packs only yearly releases • When posting a question on Linkedin – Post the solution if found offline <u>FORUM:</u> • SPI CR Ranking Website • SPI Integration • SPI Version 2013 • SPI Version 2014 • Other SPI Topics	
8	Close	• Next Meeting November 12 at Jacobs Engineering • John Dressel closed meeting	